UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/051,474 | 01/18/2002 | Sundeep Chandhoke | 5150-54200 | 2749 |

35690 7590 10/02/2007

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
P.O. BOX 398
AUSTIN, TX 78767-0398

| EXAMINER | |
|---|---|
| PILLAI, NAMITHA | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2173 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 10/02/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

D.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov



**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 10/051,474
Filing Date: January 18, 2002
Appellant(s): CHANDHOKE ET AL.

Jeffrey C. Hood
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 6/21/07 appealing from the Office action mailed 9/8/06.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

"Compumotor, Motion Builder Start-Up Guide & Tutorial" Parker Hannifin Corporation 1996

0,510,514 A1 OKA et al. 4-1992

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-7, 10-13, 15-21, 23, 25 and 27-44 rejected under 35 U.S.C. 103(a) as being unpatentable over "Compumotor, Motion Builder Start-Up Guide & Tutorial", herein referred to as Compumotor and EP Publication No. 0510514 A1 (Oka et al.), herein referred to as Oka.

Referring to claims 1, 35 and 44, Compumotor discloses a computer-implemented method for creating a motion control sequence (page 2, lines 2-5). Compumotor discloses displaying a graphical user interface that provides graphical user interface access to a set of motion control operations and receiving user input to the graphical user interface specifying the sequence of motion control operations (page 1, lines 2-9). Compumotor discloses automatically generating a graphical program implementing the specified sequence of motion control operations (page 87), wherein it is clear that the sequence of motions created represents a program that is automatically generated representing the motion functions, the user specifies a sequence but the icons represent functions and other program features such as if-then statement,

wherein with user manipulation a graphical program is automatically generated. Compumotor also discloses performing the specified sequence of motion control operations (page 8, lines 6-8). Compumotor discloses automatically generating program instructions based on receiving of user input indicating a sequence of functions but does not disclose that automatically generating a plurality of nodes and including the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program. Oka discloses a similar invention including the automatic generation of a graphical program with an objective of alleviating user interaction for creating the graphical program (column 2, lines 3-11). Oka discloses automatically generating a graphical program by including a plurality of nodes with connections between the nodes represented as the graphical flowchart, wherein this graphical flowchart can visually indicate functionality of the graphical program (column 1, lines 20-26). It would have been obvious for one skilled in the art, at the time of the invention to learn from Oka to automatically generate a plurality of nodes and include the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program. Both references are analogous directed to generation of programs automatically for alleviating user interaction. Oka has further described a method for automatically creating a graphical program based on definition data that has been provided with the objective being for the user to easily understand without actually creating the program themselves. Both references are analogous and have the same objective, wherein Compumotor also creates automatic generation of programs to alleviate user interaction

in generating programs much like Oka. Compumotor could further alleviate user interaction by learning from Oka the method of automatically generating the graphical program of Compumotor with the nodes and connections being automatically generated in the graphical program. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Oka to automatically generate a plurality of nodes and include the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program.

Referring to claims 2 and 36, Compumotor discloses storing information representing the specified sequence of motion control operations in a data structure in response to said receiving user input specifying the sequence of motion control operations (page 6, lines 5-6), wherein the flowchart would represent a data structure.

Referring to claims 3, 30 and 37, Compumotor discloses that the information does not comprise programming language code (page 6, lines 1-3), wherein the information is represented as icons and not programming language code.

Referring to claims 5 and 39, Compumotor discloses receiving user input to the graphical user interface specifying parameter values for one or more motion control operations in the sequence (page 6, lines 7-8). Compumotor also discloses storing the parameter values and executing software routines corresponding to motion control operations in the sequence (page 8, lines 19-25), wherein the parameter information is stored in the program files. Compumotor also discloses passing the parameter values to the software routines for execution (page 80, lines 11-16), wherein this example discloses how parameters are stored and used for functions during execution.

Referring to claims 6 and 40, Compumotor discloses specifying a sequence of motion control operations does not include receiving user input specifying programming language code to implement the sequence of motion control operations (page 2, lines 2-5), wherein user input specifies icons and not programming language code.

Referring to claim 7, Compumotor discloses that the motion control sequence is operable to control motion of a device (page 69, line 24).

Referring to claim 10, Compumotor discloses creating program instructions executable to perform the specified sequence of motion control operations and performing the specified sequence of motion control operations comprises executing the program instructions (page 8, lines 6-8 and lines 22-25).

Referring to claim 11, Compumotor discloses receiving user input to the graphical user interface for configuring one or more of the motion control operations in the sequence and for each motion control operation, configuring the motion control operation affects the motion control which the operation is operable to perform (page 79, lines 1-11), wherein configuring the parameters of the motion control operations affects the performance of the motion control as shown in the condition statement variables shown.

Referring to claim 12, Compumotor discloses receiving user input to the graphical user interface for configuring one or more of the motion control operations in the sequence does not include receiving user input specifying programming language code to configure the motion control operations (page 79, lines 1-11), wherein

configuring includes specifying parameters in a dialog window and does not involve programming language code.

Referring to claim 13, Compumotor discloses for each motion control operation to be configured, displaying a graphical panel including graphical user interface elements for setting one or more properties of the motion control operation and receiving user input to the graphical panel to set one or more properties of the motion control operation, as seen on the Figures of page 75.

Referring to claim 15, Compumotor discloses receiving user input requesting to configure a first motion control operation and displaying a graphical panel for configuring the first motion control operation in response to the request (page 75, lines 1-2 and top Figure).

Referring to claim 16, Compumotor discloses that the graphical user interface includes an area which visually represents the motion control operations in the sequence and for each motion control operation added to the sequence, updating the area visually representing the motion control operations in the sequence to illustrate the added motion control operation (page 78, top Figure and lines 5-7).

Referring to claim 17, Compumotor discloses that the area visually representing the motion control operations in the sequence displays a plurality of icons, wherein each icon visually indicates one of the motion control operations in the sequence and updating the area visually representing the motion control operations in the sequence to illustrate the added motion control operation comprises displaying a new icon to visually indicate the added motion control operation (page 74, lines 4-9 and Figures).

Referring to claim 18, Compumotor discloses that the graphical user interface displays a plurality of buttons, wherein each button is operable to add a new motion control operation to the sequence in response to user input and receiving user input to the graphical user interface specifying the sequence of motion control operations comprises receiving user input to the plurality of buttons to create the sequence of motion control operations, as shown by the button panel on the side of the interface shown in the Figure of page 74, wherein it shown that a user selects one of these buttons to choose a motion control operation that is to be part of the sequence.

Referring to claim 19, Compumotor discloses that the set of motion control operations includes a straight-line move operation, an arc move operation and a contoured move operation (page 80, lines 2-8).

Referring to claim 20, Compumotor discloses displaying one or more views of the sequence of motion control operations on the graphical user interface, wherein the one or more views graphically preview the cumulative movement specified by the sequence of motion control operations, as seen on the top Figure of page 87.

Referring to claim 21, Compumotor discloses that the one or more views includes a two-dimensional position view for viewing a two-dimensional display of position data of the sequence in one or more of an XY, YZ, or ZX plane, as seen in the bottom Figure of page 80.

Referring to claim 23, Compumotor discloses automatically generating a graphical program implementing the specified sequence of motion control operations includes programmatically generating a graphical program operable to perform the

specified sequence of motion control operations and wherein performing the specified sequence comprises executing the graphical program to perform the specified sequence of motion control operations (page 6, lines 2-6 and page 8, lines 6-8).

Referring to claim 25, Compumotor discloses that the graphical program comprises a graphical data flow program, as seen on top figure of page 87.

Referring to claim 27, Compumotor discloses receiving a request from a computer program to execute the sequence of motion control operations, wherein the computer program was not used to create the sequence of motion control operations and executing the specified sequence of motion control operations in response to the request (page 90 and 91), wherein the computer program is the controller to which the operations are downloaded for the execution of the specified sequence of motion control operations, wherein the sequence of motion operations were not created in this controller.

Referring to claim 28, Compumotor discloses programmatically converting the sequence of motion control operations to a format usable for configuring an embedded device to perform the sequence of motion control operations and configuring the embedded device to perform the sequence of motion control operations using the format (page 90 and 91), wherein the sequence of operations are created into a code format to be usable in the controller and downloaded into the controller to perform the sequence of motion control operations in code format.

Referring to claim 29, Compumotor discloses a computer-implemented method for creating a motion control sequence (page 2, lines 2-5). Compumotor discloses

displaying a graphical user interface that provides graphical user interface access to a set of motion control operations and receiving user input to the graphical user interface specifying the sequence of motion control operations (page 1, lines 2-9). Compumotor discloses automatically generating a graphical program implementing the specified sequence of motion control operations (page 87), wherein it is clear that the sequence of motions created represents a program that is automatically generated representing the motion functions, the user specifies a sequence but the icons represent functions and other program features such as if-then statement, wherein with user manipulation a graphical program is automatically generated. Compumotor discloses storing information representing the specified sequence of motion control operations in a data structure in response to said receiving user input specifying the sequence of motion control operations (page 6, lines 5-6), wherein the flowchart would represent a data structure. Compumotor discloses automatically generating program instructions based on receiving of user input indicating a sequence of functions but does not disclose that automatically generating a plurality of nodes and including the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program. Oka discloses a similar invention including the automatic generation of a graphical program with an objective of alleviating user interaction for creating the graphical program (column 2, lines 3-11). Oka discloses automatically generating a graphical program by including a plurality of nodes with connections between the nodes represented as the graphical flowchart, wherein this graphical flowchart can visually indicate functionality of the graphical program (column

1, lines 20-26). It would have been obvious for one skilled in the art, at the time of the invention to learn from Oka to automatically generate a plurality of nodes and include the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program. Both references are analogous directed to generation of programs automatically for alleviating user interaction. Oka has further described a method for automatically creating a graphical program based on definition data that has been provided with the objective being for the user to easily understand without actually creating the program themselves. Both references are analogous and have the same objective, wherein Compumotor also creates automatic generation of programs to alleviate user interaction in generating programs much like Oka. Compumotor could further alleviate user interaction by learning from Oka the method of automatically generating the graphical program of Compumotor with the nodes and connections being automatically generated in the graphical program. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Oka to automatically generate a plurality of nodes and include the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program.

Referring to claim 31, Compumotor discloses performing the specified sequence of motion control operations (page 91).

Referring to claim 32, Compumotor discloses a computer-implemented method for creating a motion control prototype (page 2, lines 2-5). Compumotor discloses receiving user input specifying a desired sequence of motion control operations (page 1,

lines 2-9). Compumotor discloses recording the specified sequence of motion control operations in a data structure and wherein the specified sequence of motion control operations comprises the motion control prototype; and wherein the motion control prototype is useable to control a motion device (page 2, lines 2-9 and page 69, lines 24-30). Compumotor discloses automatically generating a graphical program implementing the specified sequence of motion control operations (page 87), wherein it is clear that the sequence of motions created represents a program that is automatically generated representing the motion functions, the user specifies a sequence but the icons represent functions and other program features such as if-then statement, wherein with user manipulation a graphical program is automatically generated. Compumotor discloses automatically generating program instructions based on receiving of user input indicating a sequence of functions but does not disclose that automatically generating a plurality of nodes and including the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program. Oka discloses a similar invention including the automatic generation of a graphical program with an objective of alleviating user interaction for creating the graphical program (column 2, lines 3-11). Oka discloses automatically generating a graphical program by including a plurality of nodes with connections between the nodes represented as the graphical flowchart, wherein this graphical flowchart can visually indicate functionality of the graphical program (column 1, lines 20-26). It would have been obvious for one skilled in the art, at the time of the invention to learn from Oka to automatically generate a plurality of nodes and include the nodes in a graphical

program with a plurality of connections between the nodes for visually indicating functionality of the graphical program. Both references are analogous directed to generation of programs automatically for alleviating user interaction. Oka has further described a method for automatically creating a graphical program based on definition data that has been provided with the objective being for the user to easily understand without actually creating the program themselves. Both references are analogous and have the same objective, wherein Compumotor also creates automatic generation of programs to alleviate user interaction in generating programs much like Oka. Compumotor could further alleviate user interaction by learning from Oka the method of automatically generating the graphical program of Compumotor with the nodes and connections being automatically generated in the graphical program. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Oka to automatically generate a plurality of nodes and include the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program.

Referring to claim 33, Compumotor discloses performing the specified sequence of motion control operations to control the motion device (page 91, lines 4-5).

Referring to claim 34, Compumotor discloses displaying a set of motion control operations, wherein the user input comprises user input selecting two or more motion control operations from the set of motion control operations, as seen in top figure of page 74.

Referring to claim 38, Compumotor discloses accessing the information representing the sequence of motion control operations to determine program instructions corresponding to motion control operations in the sequence (page 8, lines 2-8 and lines 19-25) and executing the program instructions, wherein performing the specified sequence of motion control operations comprises executing the program instructions (page 91, lines 2-5).

Referring to claim 42, Compumotor discloses a system for creating a motion control sequence (page 2, lines 2-5). Compumotor discloses a processor, memory storing program instructions, a display device and wherein the processor is operable to execute the program instructions stored in the memory (page 2, lines 2-3 and lines 22-24). Compumotor discloses a computer-implemented method for creating a motion control sequence (page 2, lines 2-5). Compumotor discloses displaying a graphical user interface that provides graphical user interface access to a set of motion control operations and receiving user input to the graphical user interface specifying the sequence of motion control operations (page 1, lines 2-9). Compumotor discloses automatically generating a graphical program implementing the specified sequence of motion control operations (page 87), wherein it is clear that the sequence of motions created represents a program that is automatically generated representing the motion functions, the user specifies a sequence but the icons represent functions and other program features such as if-then statement, wherein with user manipulation a graphical program is automatically generated. Compumotor also discloses performing the specified sequence of motion control operations (page 8, lines 6-8). Compumotor

discloses automatically generating program instructions based on receiving of user input indicating a sequence of functions but does not disclose that automatically generating a plurality of nodes and including the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program. Oka discloses a similar invention including the automatic generation of a graphical program with an objective of alleviating user interaction for creating the graphical program (column 2, lines 3-11). Oka discloses automatically generating a graphical program by including a plurality of nodes with connections between the nodes represented as the graphical flowchart, wherein this graphical flowchart can visually indicate functionality of the graphical program (column 1, lines 20-26). It would have been obvious for one skilled in the art, at the time of the invention to learn from Oka to automatically generate a plurality of nodes and include the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program. Both references are analogous directed to generation of programs automatically for alleviating user interaction. Oka has further described a method for automatically creating a graphical program based on definition data that has been provided with the objective being for the user to easily understand without actually creating the program themselves. Both references are analogous and have the same objective, wherein Compumotor also creates automatic generation of programs to alleviate user interaction in generating programs much like Oka. Compumotor could further alleviate user interaction by learning from Oka the method of automatically generating the graphical program of Compumotor with the nodes and

connections being automatically generated in the graphical program. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Oka to automatically generate a plurality of nodes and include the nodes in a graphical program with a plurality of connections between the nodes for visually indicating functionality of the graphical program.

Referring to claim 43, Compumotor discloses a motion control device and wherein the program instructions execute the specified sequence of motion control operations comprises the processor executing the specified sequence of motion control operations to control the motion control device (page 91, lines 1-7).

Referring to claim 45, Compumotor discloses compiling the graphical program into executable compiled code (pages 89 and 90).

Referring to claim 46, Compumotor discloses receiving user input specifying a sequence of motion control operations comprises the user selecting at least two motion control icons, and wherein the automatically generated graphical program is distinct from the motion control icons (pages 36 and 37), wherein these icons can be selected by the user during interaction but is distinct from the icons used in the graphical program that is represented.

Referring to claim 47, Compumotor discloses that the automatically generated graphical program is modifiable by a user without the user having to modify the sequence of motion control operations (page 38), wherein the dialog box for a distinct icon allows for user's to modify or manipulate the program without changing the

sequence of the icons, wherein manipulation of parameters associated with one icon is possible.

Referring to claim 48, Compumotor and Oka discloses automatically generating the graphical program includes automatically generating the plurality of nodes and the plurality of connections between the nodes without direct user input specifying the nodes or connections between the nodes (Oka, column 1, lines 20-26).

Claims 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Compumotor and Oka.

Referring to claim 14, Compumotor and Oka do not disclose automatically displaying the graphical panel in response to adding the motion control operation to the sequence. It would have been obvious for one skilled in the art at the time of the invention to automatically display the graphical panel in response to adding the motion control. As shown by the example tutorial in Compumotor, the step of adding a motion control operation is most often followed with the step of selecting the dialog window to be displayed, wherein this redundant step can be avoided on a regular basis by simply automatically displaying the graphical panel. Compumotor teaches the main components of the feature by allowing for the addition of motion control operations and the displaying of a graphical panel to configure these operations. In order to provide a user interface with user satisfaction and to avoid redundant steps, it would be obvious to take the features already taught by Compumotor and to make the one step of displaying the panel automatically. Hence, it would have been obvious for one skilled in the art, at

the time of the invention to automatically display the graphical panel in response to adding the motion control.

Referring to claim 22, Compumotor and Oka do not disclose that the one or more views include a three-dimensional position view for viewing a three-dimensional display of position data of the sequence. It would have been obvious for one skilled in the art at the time of the invention to implement a three-dimensional position view. Compumotor already discloses presenting a two dimensional view, wherein a three-dimensional view would further give a more concise picture of the components displayed. Compumotor has disclosed the main features of motion control operation creation and display in two dimensions, wherein it would have been obvious to further this step to a three dimension display in order to give a clearer and more comprehensive view of the data that is to be displayed. Hence, it would have been obvious for one skilled in the art, at the time of the invention to implement a three-dimensional position view.

**(10) Response to Argument**

**Independent Claims 1, 29, 32, 35, 42 and 44**

Applicant argues that the combination of Compumotor and Oka do not disclose the features claimed in the present invention. The graphical program of the current application includes interconnected nodes that visually indicate functionality of a graphical program. The nodes are added automatically, which represent functionality, the nodes are automatically connected and this structure will visually indicate the functionality of the graphical program. Therefore, the structure that is generated includes nodes and connections that define a process and this structure is displayed for

a user to view the functionality of the graphical program. Compumotor has clearly disclosed that the user can select a sequence of motion control operations, where these operations are performed in a sequence defined by the user. The flowchart disclosed in Oka is a structure with nodes and interconnections between these nodes that are automatically connected to automatically generate the flowchart. This flowchart defines a program with each of the nodes representing processes defining functionality of a program. This flowchart generated automatically visually indicates to a user the functionality of a program. The combination of Compumotor and Oka would have been obvious in view of the features disclosed in these references and what one skilled in the art would have known at the time of the invention, and what one skilled in the art would have reasonably been expected to do in view of that knowledge. Compumotor has disclosed providing a manual process through which based on user selection, a graphical program is generated for implementing a sequence of motion control operations. The graphical program referred to and generated in Compumotor is defined as a flowchart where the nodes that are connected together, represent functions, are executable and represent a graphical program that is defined as a flowchart (page 2, lines 2-8). A means for automating the user interaction manual process provides motivation for Compumotor to learn from Oka how a graphical program can be automatically generated to implement the sequence of motion control operations. Automatic generation of the graphical program would alleviate user interaction, where automating a previously manual process is a known motivation for the users. Automatic generation of the graphical program is reasonably relevant when generating a sequence

of instructions that include nodes connected to create a program. The automation of the generation of the program of Compumotor is relevant and there is reasonable expectation that the user would want to automate the program generation including automating the connection of nodes to create a sequence of motion control operations. Therefore, there is reasonable relevance motivating the user to learn from Oka that the graphical program generated in Compumotor can be generated through automatic generation further relieving the user of manually creating the structure for the graphical program.

Appellant argues that Compumotor does not disclose automatically generating a graphical program. Although the user is responsible for placement of the nodes and the connections between the nodes, the programming data that is generated associated with these nodes is automatically generated in response to the user's selection. Therefore, Compumotor does disclose automatically generating the actual program based on the selections and the connections of the nodes made by the user. Compumotor does not disclose automatic placement of the nodes and the connection between the nodes but it would have been obvious to one skilled in the art and what the one skilled in the art would have reasonably expected to do in view of Oka and the motivation for automating a process that is carried out by the user in Compumotor.

Appellant argues that Compumotor does not disclose specifying both the selection by the user of the sequence of motion control operations and the generating of the graphical program generated in order to implement the sequence of the motion control operations. The initial selection of the user of the nodes representing the motion

control operations includes the user selecting a distinct motion control operation node as a sequence of motion control operations. Just this initial selection of the nodes is not the same as generating a program that is to carry out a specific functionality (top figure of page 78). A program is generated when the sequence of the motion control operation nodes are both selected and the connections between the nodes are made, where once the proper connections are made, in addition to inputting further parameters associated with the nodes, a program is generated (top figure of page 87). Furthermore, graphical program nodes are not claimed, where the claims disclose nodes within a program, where the motion control operations icons of Compumotor can represent these nodes. The graphical program or flowchart of Compumotor once generated is also executable and performs the sequence of motion control operations.

**Claim 16**

The initial sequence of motion control operations that are selected does not represent a graphical program. A graphical program is not generated until connections are made between two of the motion control operations within the sequence of motion control operations and further parameters associated with the operations are added and in response to this, a program can be automatically generated and further executed to implement the motion control operations. Therefore the workspace in Compumotor does initially display motion control operations in a sequence (top figure of page 78).

**Claim 19**

The move operation profile provided in page 80 of Compumotor allows for changes to the settings to generate distinct move operations including straight line, arc

and contoured move operations. Based on the motion profile of the example displayed in the move profile of page 80, the graph can be represented to include a straight-line representation, an arc, where the graph is described with an arch or curve and a contoured shape, which also is shown in the graph.

**Claim 20**

The graphical program defined in top figure on page 87 provides a view of the sequence of motion control operations. The connections between the sequence of motion control operations along with conditional statements relay the path through which the sequence of motion control operations can move through. The view provides a preview of the cumulative movement specified by the motion control operations.

**Claim 21**

The move icon as defined at the top of page 80 represents multiple move icons and therefore represents cumulative movement. The single move icon as defined is cumulative representation of multiple move icons.

**Claim 27**

The programs that were generated must be downloaded to another program component before the sequence of motion control operations can be executed from the program that was generated. The Motion Builder program in which the sequence of motion control operations program is generated is a Microsoft Windows based graphical programming tool where this program in which the program is generated is a Windows based application. See page 2, lines 2-8. The program is then downloaded onto controller memory of a Compumotor product as described in page 80.

**Claim 14**

Compumotor has disclosed the automatic display of the graphical panel in the top figure of page 71, which is done in response to adding the program to be created. Therefore, Compumotor does disclose automatic display in response to request for creating the sequence of motion control operations. In view of this disclosure and the known motivation of efficiency in automatic display of a graphical panel for accessing further desired data, it would have been obvious for one skilled in the art at the time of the invention to learn from Compumotor to automatically display the graphical panel in response to adding the motion control operation to the sequence.

**Claim 22**

A display through which the user can view clear details is a motivation for the user to provide a three dimensional view. The Compumotor interface displays a two-dimensional view but the details of these views provided can be better viewed when displayed as a three dimensional view. Therefore one skilled in the art would have been motivated to display the views including a three dimensional view.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Namitha Pillai
Patent Examiner
Art Unit 2173

Conferees:

Lynne H Browne
Appeal Practice Specialist, TQAS
Technology Center 2100

John W. Cabeca
Supervisory Patent Examiner
Art Unit 2173